



## RAW SEQUENCE LISTING ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number: 10/009,500  
Source: PC/10  
Date Processed by STIC: 6/6/2002.

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

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- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION QUESTIONS, PLEASE CONTACT MARK SPENCER, 703-308-4212.

FOR SEQUENCE RULES INTERPRETATION, PLEASE CONTACT ROBERT WAX, 703-308-4216.

PATENTIN 2.1 e-mail help: [patin21help@uspto.gov](mailto:patin21help@uspto.gov) or phone 703-306-4119 (R. Wax)

PATENTIN 3.0 e-mail help: [patin3help@uspto.gov](mailto:patin3help@uspto.gov) or phone 703-306-4119 (R. Wax)

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 3.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:

<http://www.uspto.gov/web/offices/pac/checker>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: U.S. Patent and Trademark Office, Box Sequence, P.O. Box 2327, Arlington, VA 22202
3. Hand Carry directly to:  
U.S. Patent and Trademark Office, Technology Center 1600, Reception Area, 7<sup>th</sup> Floor, Examiner Name, Sequence Information, Crystal Mall One, 1911 South Clark Street, Arlington, VA 22202  
Or  
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 01/29/2002



PCT10

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/009,500

DATE: 06/06/2002  
TIME: 14:28:17

Input Set : A:\merck 2332 seq list  
Output Set: N:\CRF3\06062002\J009500.raw

Does Not Comply  
Corrected Diskette Needed

3 <110> APPLICANT: Merck Patent GmbH  
5 <120> TITLE OF INVENTION: Hyaluronidase from the Hirudinaria manillensis,  
6 isolation, purification and recombinant method of  
7 production  
9 <130> FILE REFERENCE: Manillase  
11 <140> CURRENT APPLICATION NUMBER: US/10/009,500  
12 <141> CURRENT FILING DATE: 2002-04-08  
14 <160> NUMBER OF SEQ ID NOS: 15  
16 <170> SOFTWARE: PatentIn Ver. 2.1

## ERRORED SEQUENCES

258 <210> SEQ ID NO: 3  
259 <211> LENGTH: 488  
260 <212> TYPE: PRT  
261 <213> ORGANISM: Leech  
263 <400> SEQUENCE: 3  
264 Lys Glu Ile Ala Val Thr Ile Asp Asp Lys Asn Val Ile Ala Ser Ala  
265 1 5 10 15  
266 Ser Gly Ser Phe Leu Gly Val Ala Phe Asp Ala Ser Leu Phe Ser Pro  
267 20 25 30  
268 Lys Gly Leu Trp Ser Phe Val Asp Ile Thr Ser Pro Lys Leu Phe Lys  
269 35 40 45  
270 Leu Leu Glu Gly Leu Ser Pro Gly Tyr Phe Arg Val Gly Gly Thr Phe  
271 50 55 60  
272 Ala Asn Trp Leu Phe Phe Asp Leu Asp Glu Asn Asn Lys Trp Lys Asp  
273 65 70 75 80  
274 Tyr Trp Ala Phe Lys Asp Lys Thr Pro Glu Thr Ala Thr Ile Thr Arg  
275 85 90 95  
276 Arg Trp Leu Phe Arg Lys Gln Asn Asn Leu Lys Glu Thr Phe Asp  
277 100 105 110  
278 Asn Leu Val Lys Leu Thr Lys Gly Ser Lys Met Arg Leu Leu Phe Asp  
279 115 120 125  
280 Leu Asn Ala Glu Val Arg Thr Gly Tyr Glu Ile Gly Lys Lys Met Thr  
281 130 135 140  
282 Ser Thr Trp Asp Ser Ser Glu Ala Glu Lys Leu Phe Lys Tyr Cys Val  
283 145 150 155 160  
284 Ser Lys Gly Tyr Gly Asp Asn Ile Asp Trp Glu Leu Gly Asn Glu Pro  
285 165 170 175  
286 Asp His Thr Ser Ala His Asn Leu Thr Glu Lys Gln Val Gly Glu Asp  
287 180 185 190  
288 Phe Lys Ala Leu His Lys Val Leu Glu Lys Tyr Pro Thr Leu Asn Lys

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301 195 200 205  
 E--> 303 Gly Ser Leu Val Gly Pro Asp Val Gly Trp Met Gly Val Ser Xaa Val  
 304 210 215 220  
 E--> 306 Lys Gly Leu Ala Asp Glu Xaa Gly Asp His Val Xaa Ala Phe Thr Leu  
 307 225 230 235 240  
 E--> 309 His Gln Tyr Tyr Phe Asp Gly Asn Xaa Ser Asp Val Ser Ile Tyr Leu  
 310 245 250 255  
 312 Asp Ala Thr Tyr Phe Lys Lys Leu Gln Gln Leu Phe Asp Lys Val Lys  
 313 260 265 270  
 315 Asp Val Leu Lys Asp Ser Pro His Lys Asp Glu Pro Leu Trp Leu Gly  
 316 275 280 285  
 318 Glu Thr Ser Ser Gly Tyr Asn Ser Gly Thr Glu Asp Val Ser Asp Arg  
 319 290 295 300  
 321 Tyr Val Ser Gly Phe Leu Thr Leu Asp Lys Leu Gly Leu Ser Ala Ala  
 322 305 310 315 320  
 324 Asn Asn Val Lys Val Val Ile Arg Gln Thr Ile Tyr Asn Gly Tyr Tyr  
 325 325 330 335  
 327 Gly Leu Leu Asp Lys Asn Thr Leu Glu Pro Asn Pro Asp Tyr Trp Leu  
 328 340 345 350  
 330 Met His Val His Asn Ser Leu Val Gly Asn Thr Val Phe Lys Val Asp  
 331 355 360 365  
 333 Val Ser Asp Pro Thr Asn Lys Ala Arg Val Tyr Ala Gln Cys Thr Lys  
 334 370 375 380  
 336 Thr Asn Ser Lys His Thr Gln Ser Arg Tyr Tyr Lys Gly Ser Leu Thr  
 337 385 390 395 400  
 339 Ile Phe Ala Leu Asn Val Gly Asp Gly Asp Val Thr Leu Lys Ile Gly  
 340 405 410 415  
 342 Gln Tyr Ser Gly Lys Lys Ile Tyr Ser Tyr Ile Leu Thr Pro Glu Gly  
 343 420 425 430  
 345 Gly Gln Leu Thr Ser Gln Lys Val Leu Leu Asn Gly Lys Glu Leu Asn  
 346 435 440 445  
 348 Leu Val Ser Asp Gln Leu Pro Glu Leu Asn Ala Asp Glu Ser Lys Thr  
 349 450 455 460  
 351 Ser Phe Thr Leu Ser Pro Lys Thr Phe Gly Phe Phe Val Val Ser Asp  
 352 465 470 475 480  
 354 Ala Asn Val Glu Ala Cys Lys Lys  
 355 485  
 498 <210> SEQ ID NO: 5  
 499 <211> LENGTH: 488  
 500 <212> TYPE: PRT  
 501 <213> ORGANISM: Leech  
 503 <400> SEQUENCE: 5  
 504 Lys Glu Ile Ala Val Thr Ile Asp Asp Lys Asn Val Ile Ala Ser Ala  
 505 1 5 10 15  
 507 Ser Glu Ser Phe His Gly Val Ala Phe Asp Ala Ser Leu Phe Ser Pro  
 508 20 25 30  
 510 Lys Gly Leu Trp Ser Phe Val Asp Ile Thr Ser Pro Lys Leu Phe Lys  
 511 35 40 45  
 513 Leu Leu Glu Gly Leu Ser Pro Gly Tyr Phe Arg Val Gly Gly Thr Phe

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514	50	55	60													
516	Ala	Asn	Arg	Leu	Phe	Phe	Asp	Leu	Asp	Glu	Asn	Asn	Lys	Trp	Lys	Asp
517	65				70					75					80	
519	Tyr	Trp	Ala	Phe	Lys	Asp	Lys	Thr	Pro	Glu	Thr	Ala	Thr	Ile	Thr	Arg
520					85					90					95	
522	Arg	Trp	Leu	Phe	Arg	Lys	Gln	Asn	Asn	Leu	Lys	Lys	Glu	Thr	Phe	Asp
523					100					105					110	
525	Asn	Leu	Val	Lys	Leu	Thr	Lys	Gly	Ser	Lys	Met	Arg	Leu	Leu	Phe	Asp
526					115					120					125	
528	Leu	Asn	Ala	Glu	Val	Arg	Thr	Gly	Tyr	Glu	Ile	Gly	Lys	Lys	Met	Thr
529					130					135					140	
531	Ser	Thr	Trp	Asp	Ser	Ser	Glu	Ala	Glu	Lys	Leu	Phe	Lys	Tyr	Cys	Val
532	145				150					155					160	
534	Ser	Lys	Gly	Tyr	Gly	Asp	Asn	Ile	Asp	Trp	Glu	Leu	Gly	Asn	Gly	Pro
535					165					170					175	
537	Asp	His	Thr	Ser	Ala	His	Asn	Leu	Thr	Glu	Lys	Gln	Val	Gly	Glu	Asp
538					180					185					190	
540	Phe	Lys	Ala	Leu	His	Lys	Val	Leu	Glu	Lys	Tyr	Pro	Thr	Leu	Asn	Lys
541					195					200					205	
543	Gly	Ser	Leu	Val	Gly	Pro	Asp	Val	Gly	Trp	Met	Gly	Val	Ser	Tyr	Val
544					210					215					220	
546	Lys	Gly	Leu	Ala	Asp	Glu	Ala	Gly	Asp	His	Val	Thr	Ala	Phe	Thr	Leu
547	225				230					235					240	
549	His	Gln	Tyr	Tyr	Phe	Asp	Gly	Asn	Thr	Ser	Asp	Val	Ser	Ile	Tyr	Leu
550					245					250					255	
552	Asp	Ala	Thr	Tyr	Phe	Lys	Leu	Gln	Gln	Leu	Phe	Asp	Lys	Val	Lys	
553					260					265					270	
555	Asp	Val	Leu	Lys	Asp	Ser	Pro	His	Lys	Asp	Lys	Pro	Leu	Trp	Leu	Gly
556					275					280					285	
558	Glu	Thr	Ser	Ser	Gly	Tyr	Asn	Ser	Gly	Thr	Glu	Asp	Val	Ser	Asp	Arg
559					290					295					300	
561	Tyr	Val	Ser	Gly	Phe	Leu	Thr	Leu	Asp	Lys	Leu	Gly	Leu	Ser	Ala	Ala
562	305				310					315					320	
564	Asn	Asn	Val	Lys	Val	Val	Ile	Arg	Gln	Thr	Ile	Tyr	Ser	Gly	Tyr	Tyr
565					325					330					335	
567	Gly	Pro	Leu	Asp	Lys	Asn	Thr	Leu	Glu	Pro	Asn	Pro	Asp	Tyr	Trp	Leu
568					340					345					350	
570	Met	His	Val	His	Asn	Ser	Leu	Val	Gly	Asn	Thr	Val	Phe	Lys	Val	Asp
571					355					360					365	
573	Val	Ser	Asp	Pro	Thr	Asn	Lys	Ala	Arg	Val	Tyr	Ala	Gln	Cys	Thr	Lys
574					370					375					380	
576	Thr	Asn	Ser	Lys	His	Thr	Gln	Ser	Arg	Tyr	Tyr	Lys	Gly	Ser	Leu	Thr
577	385				390					395					400	
579	Ile	Phe	Ala	Leu	Asn	Val	Gly	Asp	Glu	Asp	Val	Thr	Leu	Lys	Ile	Gly
580					405					410					415	
582	Gln	Tyr	Ser	Gly	Lys	Lys	Ile	Tyr	Ser	Tyr	Ile	Leu	Thr	Pro	Glu	Gly
583					420					425					430	
585	Gly	Gln	Leu	Thr	Ser	Gln	Lys	Val	Leu	Leu	Asn	Gly	Lys	Glu	Leu	Asn
586					435					440					445	

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Input Set : A:\merck 2332 seq list  
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E--> 588 Leu Xaa Ser Asp Gln Leu Pro Gln Leu Asn Ala Asp Glu Ser Lys Thr 111 125  
589 450 455 460  
591 Ser Phe Thr Leu Ser Pro Lys Thr Phe Gly Phe Phe Val Val Ser Asp  
592 465 470 475 480  
594 Ala Asn Val Glu Ala Cys Lys Lys  
595 485

VARIABLE LOCATION SUMMARY  
PATENT APPLICATION: US/10/009,500

DATE: 06/06/2002  
TIME: 14:28:18

Input Set : A:\merck 2332 seq list  
Output Set: N:\CRF3\06062002\J009500.raw

Use of n's or Xaa's(NEW RULES):

Use of n's and/or Xaa's have been detected in the Sequence Listing.

Use of <220> to <223> is MANDATORY if n's or Xaa's are present.

in <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.

Seq#:2; Xaa Pos. 223,231,236,249

Seq#:3; Xaa Pos. 223,231,236,249

Seq#:4; Xaa Pos. 450

Seq#:5; Xaa Pos. 450

VERIFICATION SUMMARY  
PATENT APPLICATION: US/10/009,500

DATE: 06/06/2002  
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Input Set : A:\merck 2332 seq list  
Output Set: N:\CRF3\06062002\J009500.raw

L:11 M:270 C: Current Application Number differs, Replaced Application Number  
L:12 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:186 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:672  
L:190 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:720  
L:194 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:2 after pos.:768  
L:303 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:3  
M:340 Repeated in SeqNo=3  
L:486 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:1392  
L:588 M:340 E: (46) "n" or "Xaa" used: Feature required, for SEQ ID#:5